

Title (en)  
OPTICAL COUPLER FOR IN VIVO EXAMINATION OF BIOLOGICAL TISSUE

Title (de)  
OPTISCHE KOPPELVORRICHTUNG ZUR IN-VIVO UNTERSUCHUNG VON BIOLOGISCHEN GEWEBEN

Title (fr)  
COUPLEUR OPTIQUE POUR UN EXAMEN IN VIVO DE TISSUS BIOLOGIQUES

Publication  
**EP 0808124 A4 19980819 (EN)**

Application  
**EP 96902117 A 19960102**

Priority  

- US 9600235 W 19960102
- US 36793995 A 19950103
- US 9515694 W 19951204
- US 9515666 W 19951204

Abstract (en)  
[origin: WO9620638A1] An optical coupler for in vivo examination of biological tissue includes an optical input port (19) positionable on or near the examined tissue (40), a first light guide (20) optically coupled to the optical input port and constructed to transmit optical radiation of a visible or infrared wavelength from a source to the optical input port (19). The optical coupler also includes an optical detection port (21), positionable on or near the examined tissue, constructed and arranged to receive radiation that has migrated in the examined tissue from the input port (19). Connected to the detection port (21) is a detector light guide (22), constructed to transmit radiation from the detection port to an optical detector. Disposed at least partially around the examined tissue and the input and detection ports is optical medium (12) arranged to couple the radiation to the tissue, limit escape of photons, or account for photons that escaped from the tissue.

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**A61B 5/00**

IPC 8 full level  
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CPC (source: EP US)  
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Citation (search report)  

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- [XY] US 5090415 A 19920225 - YAMASHITA TAKAJI [JP], et al
- [XA] US 4321930 A 19820330 - JOEBSIS FRANS F, et al
- [A] EP 0290279 A1 19881109 - HAMAMATSU PHOTONICS KK [JP]
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**WO 9620638 A1 19960711**; CA 2209240 A1 19960711; CA 2209240 C 20090721; CN 1169665 A 19980107; CN 1230118 C 20051207; DE 69627477 D1 20030522; DE 69627477 T2 20040318; EP 0808124 A1 19971126; EP 0808124 A4 19980819; EP 0808124 B1 20030416; EP 0906052 A1 19990407; EP 0906052 A4 19990407; EP 0906052 B1 20060510; JP 3725156 B2 20051207; JP H10511875 A 19981117; US 2004054290 A1 20040318; US 2006241502 A1 20061026; US 2009030327 A1 20090129; US 5987351 A 19991116; US 6526309 B1 20030225; WO 9720494 A1 19970612

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